What is claimed is:

1. A process for making an olefin product from an oxygenate feed, the process comprising the steps of:

a) contacting a metalloaluminophosphate molecular sieve having a porous framework structure with a C_4-C_7 olefin composition in a pretreatment zone to form an integrated hydrocarbon co-catalyst within the porous framework; and

b) contacting the metalloaluminophosphate molecular sieve containing the integrated hydrocarbon co-catalyst with an oxygenate in an oxygenate conversion zone to convert the oxygenate to olefin product,

wherein the pretreatment zone is at a temperature the same as or higher than that of the reaction zone.

2. The process of claim 1, wherein the pretreatment zone is at a temperature higher than that of the reaction zone.

3. The process of claim 2, wherein the pretreatment zone is at a temperature of at least 10°C higher than that of the reaction zone.

4. The process of claim 3, wherein the pretreatment zone is at a temperature of at least 20°C higher than that of the reaction zone.

5. The process of claim 4, wherein the pretreatment zone is at a temperature of at least 50°C higher than that of the reaction zone.

6. The process of claim 1, wherein the molecular sieve contacting the olefin composition in a pretreatment zone has a carbon content of not greater than 2 wt %, based on total weight of the molecular sieve, prior to contact with the olefin.

7. The process of claim 6, wherein the molecular sieve contacting the olefin composition in a pretreatment zone has a carbon content of not greater than 1.5 wt %, based on total weight of the molecular sieve, prior to contact with the olefin.

8. The process of claim 7, wherein the molecular sieve contacting the olefin composition in a pretreatment zone has a carbon content of not greater than 1 wt %, based on total weight of the molecular sieve, prior to contact with the olefin.

9. The process of claim 8, wherein the molecular sieve contacting the olefin composition in a pretreatment zone has a carbon content of not greater than 0.5 wt %, based on total weight of the molecular sieve, prior to contact with the olefin.

10. The process of claim 1, wherein the molecular sieve containing the integrated hydrocarbon co-catalyst in the oxygenate removal zone has a hydrocarbon content of at least 0.1 wt %, based on total weight of the molecular sieve, prior to contacting the oxygenate.

11. The process of claim 10, wherein the molecular sieve containing the integrated hydrocarbon co-catalyst in the oxygenate removal zone has a hydrocarbon content of at least 1 wt %, based on total weight of the molecular sieve, prior to contacting the oxygenate.

12. The process of claim 11, wherein the molecular sieve containing the integrated hydrocarbon co-catalyst in the oxygenate removal zone has a hydrocarbon content of at least 5 wt %, based on total weight of the molecular sieve, prior to contacting the oxygenate.

13. The process of claim 1, wherein the molecular sieve of step a) contacts the olefin composition in the pretreatment zone at a WHSV that is lower than that at which the molecular sieve of step b) contacts the oxygenate.

14. The process of claim 13, wherein the molecular sieve of step a) contacts the olefin composition in the pretreatment zone at WHSV that is at least 5 hr^{-1} lower than that at which the molecular sieve of step b) contacts the oxygenate.

15. The process of claim 14, wherein the molecular sieve of step a) contacts the olefin composition in the pretreatment zone at WHSV that is at least 10 hr^{-1} lower than that at which the molecular sieve of step b) contacts the oxygenate.

16. The process of claim 15, wherein the molecular sieve of step a) contacts the olefin composition in the pretreatment zone at WHSV that is at least 15 hr^{-1} lower than that at which the molecular sieve of step b) contacts the oxygenate.

17. The process of claim 1, wherein the molecular sieve of step a) contacts the olefin composition in the pretreatment zone at an olefin to molecular sieve weight ratio of from 0.1:1 to 5:1.

18. The process of claim 17, wherein the molecular sieve of step a) contacts the olefin composition in the pretreatment zone at an olefin to molecular sieve weight ratio of from 0.5:1 to 3:1.

19. The process of claim 18, wherein the molecular sieve of step a) contacts the olefin composition in the pretreatment zone at an olefin to molecular sieve weight ratio of from 1:1 to 2:1.

20. The process of claim 1, wherein the metalloaluminophosphate molecular sieve is silicoaluminophosphate molecular sieve.

21. The process of claim 1, wherein the metallaluminophosphate molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AlPO-5, AlPO-11, AlPO-18, AlPO-31, AlPO-34, AlPO-36, AlPO-37, AlPO-46, metal containing molecular sieves thereof, and combinations thereof.

22. The process of claim 1, wherein the olefin composition contacting the molecular sieve in the pretreatment zone comprises at least 5 wt % olefin, based on total weight of the composition.

23. The process of claim 22, wherein the olefin composition contacting the molecular sieve in the pretreatment zone comprises from 5 wt % to 75 wt % olefin, based on total weight of the composition.

24. The process of claim 23, wherein a majority of the olefin is butene.

25. The process of claim 1, wherein the contact of the molecular sieve of step b) with the oxygenate in the oxygenate conversion zone converts at least 90 wt % of the oxygenate to olefin product.

26. The process of claim 1, wherein at least one olefin in the olefin product is contacted with a polyolefin forming catalyst to form polyolefin.

27. A process for making an olefin product and polyolefin from an oxygenate feed, the process comprising the steps of:

a) contacting a silicoaluminophosphate molecular sieve with a C_4-C_7 olefin composition, at an olefin to molecular sieve weight ratio of from 0.1:1 to 5:1, to form an integrated hydrocarbon co-catalyst within the porous framework;

b) contacting the silicoaluminophosphate molecular sieve containing the integrated hydrocarbon co-catalyst with an oxygenate to convert the oxygenate to olefin product; and

c) contacting at least one olefin in the olefin product with a polyolefin forming catalyst to form polyolefin.

28. The process of claim 27, wherein the molecular sieve of step a) contacts the olefin composition at an olefin to molecular sieve weight ratio of from 0.5:1 to 3:1.

29. The process of claim 28, wherein the molecular sieve of step a) contacts the olefin composition at an olefin to molecular sieve weight ratio of from 1:1 to 2:1.

30. The process of claim 27, wherein the contact of the molecular sieve and olefin composition in step a) is at a temperature the same as or higher than that of the contact of the molecular sieve and oxygenate in step b).

31. The process of claim 30, wherein the contact of the molecular sieve and olefin composition in step a) is at a temperature higher than that of the contact of the molecular sieve and oxygenate in step b).

32. The process of claim 31, wherein the contact temperature in step a) is at least 10°C higher than that the contact temperature in step b).

33. The process of claim 32, wherein the contact temperature in step a) is at least 20°C higher than that the contact temperature in step b).

34. The process of claim 33, wherein the contact temperature in step a) is at least 50°C higher than that the contact temperature in step b).

35. The process of claim 27, wherein the molecular sieve contacting the olefin in step a) has a carbon content of not greater than 2 wt %, based on total weight of the molecular sieve, prior to contact with the olefin.

36. The process of claim 35, wherein the molecular sieve contacting the olefin in step a) has a carbon content of not greater than 1.5 wt %, based on total weight of the molecular sieve, prior to contact with the olefin.

37. The process of claim 36, wherein the molecular sieve contacting the olefin in step a) has a carbon content of not greater than 1 wt %, based on total weight of the molecular sieve, prior to contact with the olefin.

38. The process of claim 37, wherein the molecular sieve contacting the olefin in step a) has a carbon content of not greater than 0.5 wt %, based on total weight of the molecular sieve, prior to contact with the olefin.

39. The process of claim 27, wherein the molecular sieve containing the integrated hydrocarbon co-catalyst in step b) has a hydrocarbon content of at least 0.1 wt %, based on total weight of the molecular sieve, prior to contacting the oxygenate.

40. The process of claim 39, wherein the molecular sieve containing the integrated hydrocarbon co-catalyst in step b) has a hydrocarbon content of at least 1 wt %, based on total weight of the molecular sieve, prior to contacting the oxygenate.

41. The process of claim 40, wherein the molecular sieve containing the integrated hydrocarbon co-catalyst in step b) has a hydrocarbon content of at

least 5 wt %, based on total weight of the molecular sieve, prior to contacting the oxygenate.

42. The process of claim 41, wherein the molecular sieve of step a) contacts the olefin composition at a WHSV that is lower than that at which the molecular sieve of step b) contacts the oxygenate.

43. The process of claim 27, wherein the molecular sieve of step a) contacts the olefin composition at WHSV that is at least 5 hr^{-1} lower than that at which the molecular sieve of step b) contacts the oxygenate.

44. The process of claim 43, wherein the molecular sieve of step a) contacts the olefin composition at WHSV that is at least 10 hr^{-1} lower than that at which the molecular sieve of step b) contacts the oxygenate.

45. The process of claim 44, wherein the molecular sieve of step a) contacts the olefin composition at WHSV that is at least 15 hr^{-1} lower than that at which the molecular sieve of step b) contacts the oxygenate.

46. The process of claim 27, wherein the silcoaluminophosphate molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, metal containing molecular sieves thereof, and combinations thereof.

47. The process of claim 27, wherein the olefin composition contacting the molecular sieve in step a) comprises at least 5 wt % olefin, based on total weight of the composition.

48. The process of claim 27, wherein the olefin composition contacting the molecular sieve in step a) comprises from 5 wt % to 75 wt % olefin, based on total weight of the composition.

49. The process of claim 48, wherein a majority of the olefin is butene.

50. The process of claim 27, wherein the contact of the molecular sieve with the oxygenate in step b) converts at least 85 wt % of the oxygenate to olefin product.